

## General

### Title

Appropriate treatment for children with upper respiratory infection (URI): percentage of children 3 months to 18 years of age who were given a diagnosis of URI and were not treated with an antibiotic medication.

### Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2015 technical specifications for ACO measurement. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percentage of children 3 months to 18 years of age who were given a diagnosis of upper respiratory infection (URI) and *were not* treated with an antibiotic medication.

This measure is reported as an inverted rate [ $1 - (\text{numerator}/\text{eligible population})$ ]. A higher rate indicates appropriate treatment of children with URI (i.e., the proportion that did *not* receive antibiotics).

Note from the National Quality Measures Clearinghouse (NQMC): For this measure, there are both Electronic and Hybrid Specifications. This NQMC measure summary is based on the Electronic specification. Refer to the original measure documentation for details pertaining to the Hybrid specification.

### Rationale

The common cold (or upper respiratory infection [URI]) is a frequent reason for children visiting the doctor's office. Though existing clinical guidelines do not support the use of antibiotics for the common cold, physicians often prescribe them for this ailment (Rosenstein et al., 1998). Pediatric clinical practice guidelines (Rosenstein et al., 1998) do not recommend antibiotics for a majority of upper respiratory tract

infections because of the viral etiology of these infections, including the common cold. A performance measure of antibiotic use for URI sheds light on the prevalence of inappropriate antibiotic prescribing in clinical practice and raises awareness of the importance of reducing inappropriate antibiotic use to combat antibiotic resistance in the community.

## Evidence for Rationale

National Committee for Quality Assurance (NCQA). HEDIS 2015: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

Rosenstein N, Phillips WR, Gerber MA, Marcy SM, Schwartz B, Dowell SF, et al. The common cold--principles of judicious use of antimicrobial agents. *Pediatrics*. 1998;101(Suppl):181-4.

## Primary Health Components

Upper respiratory infection (URI); antibiotic treatment; children

## Denominator Description

Children age 3 months as of July 1 of the year prior to the measurement year to 18 years as of June 30 of the measurement year, with a Negative Medication History and a Negative Competing Diagnosis, who had an outpatient or emergency department (ED) visit with only a diagnosis of respiratory infection (URI) during the Intake Period (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Evidence of antibiotic medication dispensed or prescribed on or three days after the Index Episode Start Date (IESD) (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

Unspecified

## Extent of Measure Testing

All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA) Committee on Performance Measurement and Board of Directors. Once NCQA

establishes national benchmarks for accountable care organization (ACO) performance, all measures will undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis. Where applicable, measures also are assessed for construct validity using the Pearson correlation test.

## Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Apr 8. 1 p.

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Accountable Care Organizations

Ambulatory/Office-based Care

Emergency Department

Hospital Outpatient

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Multisite Health Care or Public Health Organizations

### Statement of Acceptable Minimum Sample Size

Specified

### Target Population Age

Age 3 months to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

## IOM Domain

Effectiveness

# Data Collection for the Measure

## Case Finding Period

A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

Children age 3 months as of July 1 of the year prior to the measurement year to 18 years as of June 30 of the measurement year, with a Negative Medication History and a Negative Competing Diagnosis, who had an outpatient visit (Outpatient Value Set), an observation visit (Observation Value Set) or an emergency department (ED) visit (ED Value Set) during the Intake Period, with only a diagnosis of upper respiratory infection (URI) (URI Value Set)

Note:

*Intake Period:* A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period captures eligible episodes of treatment.

*Episode Date:* The date of service for any outpatient or ED visit during the Intake Period with only a diagnosis of URI.

*Negative Medication History:* A period of 30 days prior to the Episode Date when the patient had no antibiotic treatment. The 30-day look-back period for pharmacy and prescription data includes the 30 days prior to the Intake Period.

*Pharmacy Data:* No prescriptions filled more than 30 days prior to the Episode Date that are active on the Episode Date. A prescription is considered active if the "days supply" indicated on the date when the patient filled the prescription is the number of days or more between that date and the relevant service date.

*Prescription Data:* No prescriptions more than 30 days prior to the Episode Date that are active on the Episode Date. A prescription is considered active if the total "days supply" including refills on the prescription date is the number of days or more between the prescription date and the relevant service date.

*Negative Competing Diagnosis:* The Episode Date and three days following the Episode Date during which the patient had no visits with any competing diagnosis.

Refer to the original measure documentation for steps to identify the eligible population.

### Exclusions

Exclude claims/encounters with more than one diagnosis code.

Exclude ED visits that result in an inpatient admission.

*Test for Negative Medication History.* Exclude Episode Dates with evidence of antibiotic medication (refer to Table ACWP-C in the original measure documentation for a list of antibiotic medications) 30 days prior to the Episode Date.

*Test for Negative Competing Diagnosis.* Exclude Episode Dates where the patient had a claim/encounter with a competing diagnosis on or three days after the Episode Date. A code from either of the following meets criteria for a competing diagnosis:

Pharyngitis Value Set

Competing Diagnosis Value Set

### Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the [NCQA Web site](#)  to purchase *HEDIS 2015 Technical Specifications for ACO Measurement*, which includes the Value Set Directory.

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Evidence of antibiotic medication on or three days after the Index Episode Start Date (IESD). Refer to Table ACWP-C in the original measure documentation for a list of antibiotic medications.

*Pharmacy Data*: Dispensed antibiotic medication

*Prescription Data*: Prescribed antibiotic medication

Note:

*IESD*: The earliest Episode Date during the Intake Period that meets all of the following criteria:

A 30-day Negative Medication History prior to the Episode Date

A Negative Competing Diagnosis during the 3 days after the Episode Date

This measure is reported as an inverted rate  $[1 - (\text{numerator}/\text{eligible population})]$ .

Exclusions

Unspecified

Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the [NCQA Web site](#)  to purchase *HEDIS 2015 Technical Specifications for ACO Measurement*, which includes the Value Set Directory.

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Pharmacy data

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Unspecified

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

## Scoring

Rate/Proportion

## Interpretation of Score

Desired value is a higher score

## Allowance for Patient or Population Factors

not defined yet

## Description of Allowance for Patient or Population Factors

The Accountable Care Organization (ACO) aggregate population is reported as a whole, with an option to report Medicaid separately for measures for which HEDIS Health Plan Measurement offers Medicaid specifications.

## Standard of Comparison

not defined yet

## Identifying Information

### Original Title

Appropriate treatment for children with upper respiratory infection (AURI).

### Measure Collection Name

HEDIS 2015: Accountable Care Organization (ACO) Collection

### Measure Set Name

Effectiveness of Care

### Measure Subset Name

Respiratory Conditions

### Submitter

National Committee for Quality Assurance - Health Care Accreditation Organization

### Developer

National Committee for Quality Assurance - Health Care Accreditation Organization

### Funding Source(s)

Unspecified

## Composition of the Group that Developed the Measure

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

## Financial Disclosures/Other Potential Conflicts of Interest

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2016 Mar 3

## Adaptation

This measure was adapted from the *HEDIS Technical Specifications for Health Plans ("HEDIS Health Plan Measurement")* and *HEDIS Physician Measurement*.

## Date of Most Current Version in NQMC

2014 Nov

## Measure Maintenance

Annual

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2013 Technical Specifications for ACO Measurement. Washington (DC): National Committee for Quality



Assurance (NCQA); 2012. various p.

The measure developer reaffirmed the currency of this measure in November 2015.

## Measure Availability

Source available for purchase from the [National Committee for Quality Measurement \(NCQA\) Web site](#)

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For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org) .

## NQMC Status

This NQMC summary was completed by ECRI Institute on May 13, 2014.

This NQMC summary was updated by ECRI Institute on February 11, 2015.

The information was reaffirmed by the measure developer on November 2, 2015.

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## Production

### Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2015 technical specifications for ACO measurement. Washington (DC): National Committee for Quality Assurance (NCQA); 2014. various p.

## Disclaimer

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